# Exhibit 2

## **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 10-K**

(Mark One)	
☑ ANNUAL REPORT PURSUANT	TO SECTION 13 OR 15(d) OF THE SECURIT

firm that prepared or issued its audit report.

	CTION 13 OR 15(d) OF e fiscal year ended <u>Septembe</u> r	THE SECURITIES EXCHANGE ACT OF 1934 r 30, 2022		
☐ TRANSITION REPORT PURSUANT TO S	ECTION 13 OR 15(d) O	F THE SECURITIES EXCHANGE ACT OF 1934		
For the transition p	period from	.to		
C	ommission file number: 001-3	<u>7606</u>		
ANAVEX I	LIFE SCIEN	ICES CORP.		
	ame of registrant as specified i			
Nevada		98-0608404		
(State or other jurisdiction of incorporation or orga-	nization)	(I.R.S. Employer Identification No.)		
630 5th Avenue, 20th Floor, New York, NY US	SA	10111		
(Address of principal executive offices)		(Zip Code)		
Registrant's tele	phone number, including area	code <u>1-844-689-3939</u>		
Securities	s registered under Section 12(	b) of the Act:		
Common Stock, \$0.001 par value	AVXL	NASDAQ Stock Market LLC		
Title of each class	Trading Symbol	Name of each exchange on which registered		
Securities re Indicate by checkmark if the registrant is a well-known se	gistered pursuant to Section 1  None  (Title of class)  asoned issuer, as defined in R			
		Yes ⊠ No □		
Indicate by checkmark if the registrant is not required to f	ile reports pursuant to Section	a 13 or 15(d) of the Act. $\label{eq:Yes} \mbox{Yes} \; \square \; \mbox{No} \; \boxtimes$		
Indicate by checkmark whether the registrant has (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.				
		Yes ⊠ No □		
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).				
,		Yes ⊠ No □		
		filer, a non- accelerated filer, a smaller reporting company, or red filer", "smaller reporting company" and "emerging growth		
Large accelerated filer $\boxtimes$		Accelerated filer □		
Non-accelerated filer □		Smaller reporting company □		
		Emerging growth company $\square$		
If an emerging growth company, indicate by check mark any new or revised financial accounting standards provide	•	of the Exchange Act		
Indicate by check mark whether the registrant has filed a internal controls over financial reporting under Section 40				

Yes  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes □ No ⊠

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: \$921 million based on a price of \$12.31 per share, being the closing price of the registrant's common stock on March 31, 2022.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 77,961,815 issued and outstanding as of November 28, 2022.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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### Forward Looking Statements.

This Annual Report on Form 10-K includes forward-looking statements. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our anticipated future clinical and regulatory milestone events, future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words "believe," "may," "estimate," "continue," "anticipate," "intend," "expect," "should," "forecast," "potential," "predict," "could," "would," "will," "suggest," "plan" and similar expressions, as they relate to us, are intended to identify forward-looking statements. Such forward-looking statements include, without limitation, statements regarding:

- volatility in our stock price and in the markets in general;
- our ability to successfully conduct preclinical studies and clinical trials for our product candidates;
- our ability to raise additional capital on favorable terms and the impact of such activities on our stockholders and stock price;
- the impact of the COVID-19 outbreak and its effect on us;
- our ability to generate any revenue or to continue as a going concern;
- our ability to execute our research and development plan on time and on budget;
- our products candidates' ability to demonstrate efficacy or an acceptable safety profile;
- our ability to obtain the support of qualified scientific collaborators;
- our ability, whether alone or with commercial partners, to successfully commercialize any of our product candidates that may be approved for sale:
- our ability to identify and obtain additional product candidates;
- our reliance on third parties in non-clinical studies and clinical trials;
- our ability to defend against product liability claims;
- our ability to safeguard against security breaches;
- our ability to obtain and maintain sufficient intellectual property protection for our product candidates;
- our ability to comply with our intellectual property licensing agreements;
- our ability to defend against claims of intellectual property infringement;
- our ability to comply with the maintenance requirements of the government patent agencies;
- our ability to protect our intellectual property rights throughout the world;
- competition;
- the anticipated start dates, durations and completion dates of our ongoing and future clinical trials;
- the anticipated designs of our future clinical trials;
- our ability to attract and retain qualified employees;
- the impact of Fast Track designation on receipt of actual FDA approval;
- our anticipated future regulatory submissions and our ability to receive regulatory approvals to develop and market our product candidates, including any orphan drug or Fast Track designations; and
- our anticipated future cash position and ability to obtain funding for our operations.

We have based these forward-looking statements largely on our current expectations and projections about future events, including the responses we expect from the U.S. Food and Drug Administration, ("FDA"), and other regulatory authorities and financial trends that we believe may affect our financial condition, results of operations, business strategy, preclinical and clinical trials, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions including, without limitation, the risks described in "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K. These risks are not exhaustive. Other sections of this Annual Report on Form 10-K include additional factors which could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable laws including the securities laws of the United States, we assume no obligation to update or supplement forward-looking statements.

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context clearly requires otherwise.

### **PARTI**

### **ITEM 1. BUSINESS**

### Overview and Strategy

Anavex Life Sciences Corp. is a clinical stage biopharmaceutical company engaged in the development of differentiated therapeutics by applying precision medicine to central nervous system ("CNS") diseases with high unmet need. We analyze genomic data from clinical trials to identify biomarkers, which we use in the analysis of our clinical trials.

Our lead product candidate, ANAVEX®2-73, is being developed to treat Alzheimer's disease, Parkinson's disease and potentially other central nervous system diseases, including rare diseases, such as Rett syndrome, a rare severe neurological monogenic disorder caused by mutations in the X-linked gene, methyl-CpG-binding protein 2 ("MECP2").

We currently have two core programs and two seed programs. Our core programs are at various stages of clinical and preclinical development, in neurodegenerative and neurodevelopmental diseases.

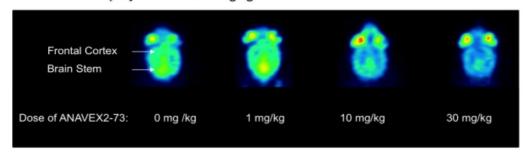
The following table summarizes key information about our programs:

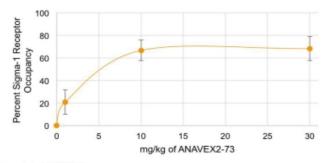


<sup>\* =</sup> Orphan Drug Designation by the FDA; Dashed lines indicate planned clinical trials to-date

Anavex has a portfolio of compounds varying in sigma-1 receptor (SIGMAR1) binding activities. The SIGMAR1 gene encodes the SIGMAR1 protein, which is an intracellular chaperone protein with important roles in cellular communication. SIGMAR1 is also involved in transcriptional regulation at the nuclear envelope and restores homeostasis and stimulates recovery of cell function when activated. In order to validate the ability of our compounds to activate quantitatively the SIGMAR1, we performed, in collaboration with Stanford University, a quantitative Positron Emission Tomography (PET) imaging scan in mice, which demonstrated a dose-dependent ANAVEX®2-73 target engagement or receptor occupancy with SIGMAR1 in the brain.

### 2D [18F]FTC-146-PET imaging of ANAVEX®2-73





Sigma-1 receptor target occupancy study with quantitative PET scan of ANAVEX®2-73

Reyes S et al, AAIC 2018

Source: Reyes S et al., Sci Rep. 2021 Aug 25;11(1):17150

#### Cellular Homeostasis

Many diseases are possibly directly caused by chronic homeostatic imbalances or cellular stress of brain cells. In pediatric diseases, such as Rett syndrome or infantile spasms, the chronic cellular stress is possibly caused by the presence of a constant genetic mutation. In neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases, chronic cellular stress is possibly caused by age-correlated buildup of cellular insult and hence chronic cellular stress. Specifically, defects in homeostasis of protein or ribonucleic acid ("RNA") lead to the death of neurons and dysfunction of the nervous system. The spreading of protein aggregates resulting in a proteinopathy, a characteristic found in Alzheimer's and Parkinson's diseases that results from disorders of protein synthesis, trafficking, folding, processing or degradation in cells. The clearance of macromolecules in the brain is particularly susceptible to imbalances that result in aggregation and degeneration in nerve cells. For example, Alzheimer's disease pathology is characterized by the presence of amyloid plaques, and neurofibrillary tangles, which are aggregates of hyperphosphorylated Tau protein that are a marker of other diseases known as tauopathies as well as inflammation of microglia. With the SIGMAR1 activation through SIGMAR1 agonists like ANAVEX<sup>®</sup>2-73, our approach is to restore cellular balance (i.e. homeostasis). Therapies that correct defects in cellular homeostasis might have the potential to halt or delay neurodevelopmental and neurodegenerative disease progression.

### ANAVEX®2-73-specific Biomarkers

As part of some of our clinical trials, we have incorporated a genomic analysis to better understand potential populations for whom our clinical programs might benefit. In our clinical trials, a full genomic analysis of Alzheimer's disease patients treated with ANAVEX<sup>®</sup>2-73 has helped us identify actionable genetic variants. A significant impact of the genomic biomarkers SIGMAR1, the direct target of ANAVEX<sup>®</sup>2-73 and COMT, a gene involved in memory function, on the drug response level was identified, leading to an early ANAVEX<sup>®</sup>2-73-specific biomarker hypothesis. We believe that *excluding* patients with SIGMAR1 identified biomarker variant (approximately 10%-20% of the population) in prospective studies would identify approximately 80%-90% patients that would display clinically significant improved functional and cognitive scores. The consistency between the identified DNA and RNA data related to ANAVEX<sup>®</sup>2-73, which are considered independent of Alzheimer's disease pathology, as well as multiple endpoints and time-points, provides support for the potential precision medicine clinical development of ANAVEX<sup>®</sup>2-73 by using genetic biomarkers identified within the trial population itself to target patients who are most likely to respond to ANAVEX<sup>®</sup>2-73 treatment. We may in the future utilize such an approach in Alzheimer's disease as well as indications like Parkinson's disease dementia or Rett syndrome in which ANAVEX<sup>®</sup>2-73 is currently being studied.

### Clinical Trials Overview

### Alzheimer's Disease

In November 2016, we completed a Phase 2a clinical trial, consisting of Part A and Part B, which lasted a total of 57 weeks, for ANAVEX<sup>®</sup>2-73 in mild-to-moderate Alzheimer's patients. This open-label, randomized trial in Australia met both primary and secondary endpoints and was designed to assess the safety and exploratory efficacy of ANAVEX<sup>®</sup>2-73 in 32 patients. ANAVEX<sup>®</sup>2-73 targets sigma-1 and muscarinic receptors, which have been shown in preclinical studies to reduce stress levels in the brain believed to restore cellular homeostasis and to reverse the pathological hallmarks observed in Alzheimer's disease. In October 2017, we presented positive pharmacokinetic ("PK") and pharmacodynamic ("PD") data from the Phase 2a clinical trial, which established a concentration-effect relationship between ANAVEX<sup>®</sup>2-73 and trial measurements. These measures obtained from all patients who participated in the entire 57 weeks include exploratory cognitive and functional scores as well as biomarker signals of brain activity. Additionally, the clinical trial appeared to show that ANAVEX<sup>®</sup>2-73 activity was enhanced by its active metabolite (ANAVEX19-144), which also targets the SIGMAR1 receptor and has a half-life approximately twice as long as the parent molecule.

Two consecutive trial extensions for the Phase 2a trial have allowed participants who completed the 52-week Part B of the trial to continue taking ANAVEX®2-73, providing us an opportunity to gather extended safety data for a cumulative time period of five years. In August 2020, patients completing these Phase 2a trial extensions were granted continued access to treatment with ANAVEX®2-73 through the Australian Government Department of Health - Therapeutic Goods Administration's compassionate use Special Access Scheme.

A larger Phase 2b/3 double-blind, placebo-controlled trial of ANAVEX<sup>®</sup>2-73 in Alzheimer's disease commenced in August 2018. The Phase 2b/3 trial enrolled 509 patients for 48 weeks, randomized 1:1:1 to two different ANAVEX<sup>®</sup>2-73 doses or placebo. The trial commenced in Australia; and during fiscal 2020 additional regions were added in the United Kingdom, The Netherlands, Germany and Canada. Primary and secondary endpoints will assess safety and both cognitive and functional efficacy, measured through Alzheimer's Disease Assessment Scale - Cognition (ADAS-Cog), ADCS-ADL and Clinical Dementia Rating - Sum of Boxes for cognition and function (CDR-SB). In addition to the primary endpoints, the ANAVEX<sup>®</sup>2-73 Phase 2b/3 trial design incorporated pre-specified statistical analyses related to potential genomic precision medicine biomarkers identified in the ANAVEX<sup>®</sup>2-73 Phase 2a clinical trial. The trial completed enrollment in June 2021, exceeding the 450 patient enrollment target at 52 sites across Canada, Europe and Australia.

In October 2019, we initiated a long-term open label extension study of ANAVEX®2-73, entitled the ATTENTION-AD trial, for patients who have completed the 48-week Phase 2b/3 placebo-controlled trial referenced above. This trial extension for an additional two years gives patients the opportunity to continue their treatment. Upon request by patients, caretakers and investigators, this extension trial was extended by one additional year.

### Rett Syndrome

In February 2016, we presented positive preclinical data for ANAVEX®2-73 in Rett syndrome, a rare neurodevelopmental disease. The data demonstrated dose related and significant improvements in an array of behavioral and gait paradigms in a mouse model with a MECP2-null mutation that causes neurological symptoms that mimic Rett syndrome. The study was funded by the International Rett Syndrome Foundation ("Rettsyndrome.org"). In January 2017, we were awarded a financial grant from Rettsyndrome.org of a minimum of \$0.6 million to cover some of the costs of a multicenter Phase 2 clinical trial of ANAVEX®2-73 for the treatment of Rett syndrome. This award was received in quarterly instalments which commenced during fiscal 2018.

In March 2019, we commenced the first Phase 2 clinical trial in a planned Rett syndrome program of ANAVEX<sup>®</sup>2-73 for the treatment of Rett syndrome. The clinical trials are being conducted in a range of patient age demographics and geographic regions, utilizing an oral liquid once-daily formulation of ANAVEX<sup>®</sup>2-73.

The first Phase 2 trial, (ANAVEX®2-73-RS-001), which took place in the United States, was completed in December 2020. This trial was a randomized double-blind, placebo-controlled safety, tolerability, PK and efficacy trial of oral liquid ANAVEX®2-73 formulation in 25 adult female patients with Rett syndrome over a 7-week treatment period including ANAVEX®2-73-specific genomic precision medicine biomarkers. The primary endpoint of the trial was safety. The dosing of 5 mg ANAVEX®2-73 was well-tolerated and demonstrated dose-proportional PK. All secondary efficacy endpoints of the trial showed statistically significant and clinically meaningful response in the Rett Syndrome Behaviour Questionnaire ("RSBQ") response, when compared to placebo, in the intent to treat ("ITT") cohort (all participants, p = 0.011). 66.7% of ANAVEX®2-73 treated subjects showed a statistically significant improvement in RSBQ response as compared to 10% of the subjects on placebo in the ITT cohort (all participants, p = 0.011). ANAVEX®2-73 treatment resulted in a sustained improvement in Clinical Global Impression Improvement ("CGI-I") response throughout the 7-week clinical trial, when compared to placebo in the ITT cohort (all participants, p = 0.014). Consistent with previous ANAVEX®2-73 clinical trials, patients carrying the common form of the SIGMAR1 gene treated with ANAVEX®2-73 experienced stronger improvements in the prespecified efficacy endpoints.

The second, international trial of ANAVEX®2-73 for the treatment of Rett syndrome, called the AVATAR trial, commenced in June 2019. This trial took place in Australia and the United Kingdom using a higher dose than the U.S. based Phase 2 trial for Rett syndrome. The trial was a Phase 3 randomized, double-blind, placebo-controlled trial to evaluate the safety and efficacy of ANAVEX®2-73 in 33 adult patients over a 7-week treatment period including ANAVEX®2-73 specific precision medicine biomarkers. Based upon the input from the successful U.S. Phase 2 Rett syndrome trial (ANAVEX®2-73-RS-001), we updated the endpoints for the AVATAR trial (ANAVEX®2-73-RS-002) to appropriately assess the clinically meaningful outcome following International Conference on Harmonization (ICH) guidelines. These updates were approved by the respective regulatory authorities in the U.K. and in Australia, respectively, where the AVATAR trial was conducted.

The data from the AVATAR trial was released in February 2022. The clinical trial met all primary and secondary efficacy and safety endpoints, with consistent improvements in primary efficacy endpoint, RSBQ response (p = 0.037), and secondary efficacy endpoints, ADAMS (p = 0.010) and CGI-I (p = 0.037) response. Efficacy endpoints demonstrated statistically significant and clinically meaningful reductions in Rett syndrome symptoms. Convenient once daily oral liquid doses of up to 30 mg of ANAVEX<sup>®</sup>2-73 were also well tolerated with good medication compliance. All patients who participated in the trial were eligible to receive ANAVEX<sup>®</sup>2-73 under a voluntary open label extension protocol.

In July 2020, we commenced the third trial of ANAVEX<sup>®</sup>2-73 for the treatment of Rett syndrome, called the EXCELLENCE trial. This Phase 2/3 trial in pediatric patients with Rett syndrome includes trial sites in Australia, the United Kingdom, and Canada, and will evaluate the safety and efficacy of ANAVEX<sup>®</sup>2-73 in approximately 84 pediatric patients, aged 5 to 18, over a 12-week treatment period incorporating ANAVEX<sup>®</sup>2-73 specific precision medicine biomarkers. All patients who participate in the trial will be eligible to receive ANAVEX<sup>®</sup>2-73 under a voluntary open label extension protocol, which is currently ongoing.

### Parkinson's Disease

In September 2016, we presented positive preclinical data for ANAVEX®2-73 in an animal model of Parkinson's disease, which demonstrated significant improvements on behavioral, histopathological, and neuroinflammatory endpoints. The study was funded by the Michael J. Fox Foundation. Additional data announced in October 2017 indicated that ANAVEX®2-73 induced robust neurorestoration in experimental Parkinsonism. We believe that the encouraging results we have gathered in this preclinical model, coupled with the favorable profile of this product candidate in the Alzheimer's disease trial, support the notion that ANAVEX®2-73 has the potential to treat Parkinson's disease dementia.

### SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 28, 2022 ANAVEX LIFE SCIENCES CORP.

By: /s/ Christopher Missling, PhD

Name Christopher Missling, PhD

:

Title: Chief Executive Officer (Principal Executive

Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signatures	Title(s)	Date
/s/ Christopher Missling, PhD		November 28, 2022
Christopher Missling, PhD	Chief Executive Officer (Principal Executive Officer)	
/s/ Sandra Boenisch		November 28, 2022
Sandra Boenisch, CPA, CGA	Principal Financial Officer and Treasurer (Principal Accounting Officer)	
/s/ Athanasios Skarpelos Athanasios Skarpelos	Director	November 28, 2022
/s/ Claus van der Velden, PhD Claus van der Velden, PhD	Director	November 28, 2022
/s/ Steffen Thomas, PhD Steffen Thomas, PhD	Director	November 28, 2022
/s/ Peter Donhauser, D.O. Peter Donhauser, D.O.	Director	November 28, 2022
/s/ Jiong Ma, PhD Jiong Ma, PhD	Director	November 28, 2022
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**EXHIBIT 4.1** 

# DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Anavex Life Sciences Corp (the "Company") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: the Company's common stock, par value \$0.001 per share (the "Common Stock")

### **Description of Common Stock**

The following summary description sets forth some of the general terms and provisions of the Common Stock. Because this is a summary description, it does not contain all of the information that may be important to you. For a more detailed description of the Company's Common Stock, you should refer to the provisions of the Company's Articles of Incorporation, as amended (the "Charter") and the Company's Bylaws (the "Bylaws"), each of which is an exhibit to the Annual Report on Form 10-K to which this description is an exhibit.

### **Authorized Shares**

We are authorized to issue 200,000,000 shares of Common Stock with a par value of \$0.001.

### **Voting Rights**

The outstanding shares of our Common Stock are fully paid and non-assessable. The holders of Common Stock are entitled to one vote per share for the election of directors and with respect to all other matters submitted to a vote of stockholders.

### Liquidation, Dissolution or Similar Rights

Upon liquidation, dissolution or winding up of the corporation, the holders of Common Stock are entitled to share ratably in all net assets available for distribution to stockholders after payment to creditors. The Common Stock is not convertible or redeemable and has no preemptive, subscription or conversion rights. There are no conversion, redemption, sinking fund or similar provisions regarding the Common Stock. Each outstanding share of Common Stock is entitled to one vote on all matters submitted to a vote of stockholders. There are no cumulative voting rights.

### **Dividend Rights**

Each stockholder is entitled to receive the dividends as may be declared by our board of directors out of funds legally available for dividends and, in the event of liquidation, to share pro rata in any distribution of our assets after payment of liabilities. Our board of directors is not obligated to declare a dividend. Any future dividends will be subject to the discretion of our board of directors and will depend upon, among other things, future earnings, the operating and financial condition of our Company, its capital requirements, general business conditions and other pertinent factors. It is not anticipated that dividends will be paid in the foreseeable future.

### Nevada Anti-Takeover Law and Charter and Bylaws Provisions

Nevada Revised Statutes sections 78.378 to 78.3793 provide state regulation over the acquisition of a controlling interest in certain Nevada corporations unless the articles of incorporation or bylaws of the corporation provide that the provisions of these sections do not apply. The statute creates a number of restrictions on the ability of a person or entity to acquire control of a Nevada company by setting down certain rules of conduct and voting restrictions in any acquisition attempt, among other things. Our bylaws provide that these sections do not apply.

There are no provisions in our articles of incorporation or our bylaws that would delay, defer or prevent a change in control of our Company.

### Indemnification Of Directors And Executive Officers And Limitation On Liability.

Our Bylaws provide that any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director, officer, employee or agent of the Company (or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise) shall be indemnified and held harmless by the Company to the fullest extent permitted by Nevada law against expenses including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such proceeding.

The Bylaws also provide that the expenses of officers and directors incurred in defending a civil or criminal action, suit or proceeding must be paid by the Company as they are incurred and in advance of the final disposition of the action, suit or proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he is not entitled to be indemnified by the Company. Such right of indemnification shall be a contract right which may be enforced in any manner desired by such person. Such right of indemnification shall not be exclusive of any other right which such directors, officers or representatives may have or hereafter acquire and, without limiting the generality of such statement, they shall be entitled to their respective rights of indemnification under any bylaw, agreement, vote of stockholders, provision of law or otherwise, as well as their rights under the Bylaws.

The Bylaws provide that the Board of Directors may cause the Company to purchase and maintain insurance on behalf of any person who is or was a director or officer of the Company, or is or was serving at the request of the Company as a director or officer of another Company, or as its representative in a partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred in any such capacity or arising out of such status, whether or not the Company would have the power to indemnify such person.

Nevada Revised Statutes 78.751 and 78.7502 have provisions that provide for discretionary and mandatory indemnification of officers, directors, employees, and agents of a corporation. Under these provisions, such persons may be indemnified by a corporation against expenses, including attorney's fees, judgment, fines and amounts paid in settlement, actually and reasonably incurred by him in connection with the action, suit or proceeding, if he acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation and with respect to any criminal action or proceeding had no reasonable cause to believe his conduct was unlawful.

To the extent that a director, officer, employee or agent has been successful on the merits or otherwise in defense of any action, suit or proceeding, or in defense of any claim, issue or matter, the Nevada Revised Statues provide that he must be indemnified by the Company against expenses, including attorney's fees, actually and reasonably incurred by him in connection with the defense.

Section 78.7502 of the Nevada Revised Statues also provides that any discretionary indemnification, unless ordered by a court or advanced by the Company, may be made only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances.

The determination must be made:

- By the stockholders;
- By the Company's Board of Directors by majority vote of a quorum consisting of directors who were not parties to that act, suit or proceeding;
- If a majority vote of a quorum consisting of directors who were not parties to the act, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion; or
- If a quorum consisting of directors who were not parties to the act, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion.

**EXHIBIT 23.1** 

### CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated November 28, 2022, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Anavex Life Sciences Corp. on Form 10-K for the year ended September 30, 2022. We consent to the incorporation by reference of said reports in the Registration Statements of Anavex Life Sciences Corp. on Forms S-3 (No. 333-218292, and No. 333-259788) and Forms S-8 (No. 333-219934, No. 333-255166 and No. 333-265537)

/s/ GRANT THORNTON LLP

Hartford, CT November 28, 2022

**EXHIBIT 23.2** 

### Consent of Independent Registered Public Accounting Firm

Anavex Life Sciences Corp. New York, New York

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-218292 and No. 333-259788) and Form S-8 (No. 333-219934, No. 333-255166 and No. 333-265537) of Anavex Life Sciences Corp. and subsidiaries of our reports dated November 24, 2021, relating to the consolidated financial statements and the effectiveness of Anavex Life Science Corp.'s internal control over financial reporting, which appear in this Annual Report on Form 10-K.

/s/BDO USA, LLP New York, New York

November 28, 2022

**EXHIBIT 31.1** 

### CERTIFICATION

- I, Christopher Missling, certify that:
- I have reviewed this Annual Report on Form 10-K of Anavex Life Sciences Corp.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 28, 2022	
/s/ Christopher Missling	
Christopher Missling, PhD	
Chief Executive Officer, President,	
Secretary	
(Principal Executive Officer)	

**EXHIBIT 31.2** 

### CERTIFICATION

### I, Sandra Boenisch, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Anavex Life Sciences Corp.;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make
  the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered
  by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 28, 2022

/s/ Sandra Boenisch

Sandra Boenisch, CPA, CGA Principal Financial Officer, Treasurer (Principal Financial and Accounting Officer)

**EXHIBIT 32.1** 

### CERTIFICATION

In connection with the Annual Report of Anavex Life Sciences Corp. (the "Company") on Form 10-K for the fiscal year ending September 30, 2022 as filed with the Securities and Exchange Commission (the "Report"), the undersigned, in the capacities and on the date indicated below, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 28, 2022

/s/ Christopher Missling

Christopher Missling, PhD
Chief Executive Officer, President, Secretary (Principal Executive Officer)

/s/ Sandra Boenisch

Sandra Boenisch, CPA, CGA Principal Financial Officer, Treasurer (Principal Financial and Accounting Officer)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.